



1 CAGTGTGCTG GCGGCCCGGC GCGAGCCGGC CCGGCCCCGG TCGGGCCTCC
-26

GAAACC ATG AAC TTT CTG CTG TCT TGG GTG CAT TGG AGC
M N F L L S W V H W S
-26 -20

90 CTC GCC TTG CTG CTC TAC CTC CAC CAT GCC AAG TGG TCC CAG
-15 L A L L L Y L H H A K W S Q
-10

GCT GCA CCC ATG GCA GAA GGA GGA GGG CAG AAT CAT CAC
A A P M A E G G G Q N H H
-1 +1 +5 +10

171 GAA GTG GTG AAG TTC ATG GAT GTC TAT CAG CGC AGC TAC TGC
13 E V V K F M D V Y Q R S Y C
+15 +20 +25

CAT CCA ATC GAG ACC CTG GTG GAC ATC TTC CAG GAG TAC
H P I E T L V D I F Q E Y
+30 +35

252 CCT GAT GAG ATC GAG TAC ATC TTC AAG CCA TCC TGT GTG CCC
40 P D E I E Y I F K P S C V P
+40 +45 +50

CTG ATG CGA TGC GGG GGC TGC TGC AAT GAC GAG GGC CTG
L M R C G G C C N D E G L
+55 +60 +65

333 GAG TGT GTG CCC ACT GAG GAG TCC AAC ATC ACC ATG CAG ATT
67 E C V P T E E S N I T M Q I
+70 +75 +80

ATG CGG ATC AAA CCT CAC CAA GGC CAG CAC ATA GGA GAG
M R I K P H Q G Q H I G E
+85 +90

414 ATG AGC TTC CTA CAG CAC AAC AAA TGT GAA TGC AGA CCA AAG
94 M S F L Q H N K C E C R P K
+95 +100 +105

AAA GAT AGA GCA AGA CAA GAA AAT CCC TGT GGG CCT TGC
K D R A R Q E N P C G P C
+110 +115 +120

495 TCA GAG CGG AGA AAG CAT TTG TTT GTA CAA GAT CCG CAG ACG
121 S E R R K H L F V Q D P Q T
+125 +130

TGT AAA TGT TCC TGC AAA AAC ACA GAC TCG CGT TGC AAG
C K C S C K N T D S R C K
+135 +140 +145

FIG. 1A

576 GCG AGG CAG CTT GAG TTA AAC GAA CGT ACT TGC AGA TGT GAC
148 A R Q L E L N E R T C R C D
 +150 +155 +160

AAG CCG AGG CGG TGA GCCGGGCA GGAGGAAGGA GCCTCCCTCA
K P R R O
 +165

661 GGGTTTCGGG AACCAGATCT CTCACCAGGA AAGACTGATA CAGAACGATC
GATACAGAAA CCACGCTGCC GCCACCACAC CATCACCATC GACAGAACAG
761 TCCTTAATCC AGAAACCTGA AATGAAGGAA GAGGAGACTC TGCGCAGAGC
ACTTTGGGTC CGGAGGGCGA GACTCCGGCG GAAGCATTCC CGGGCGGGTG
861 ACCCAGCACG GTCCCTCTTG GAATTGGATT CGCCATTTTA TTTTCTTGC
TGCTAAATCA CCGAGCCCGG AAGATTAGAG AGTTTTATTT CTGGGATTCC
961 TGTAGACACA CCGCGGCCGC CAGCACACTG

FIG. 1B

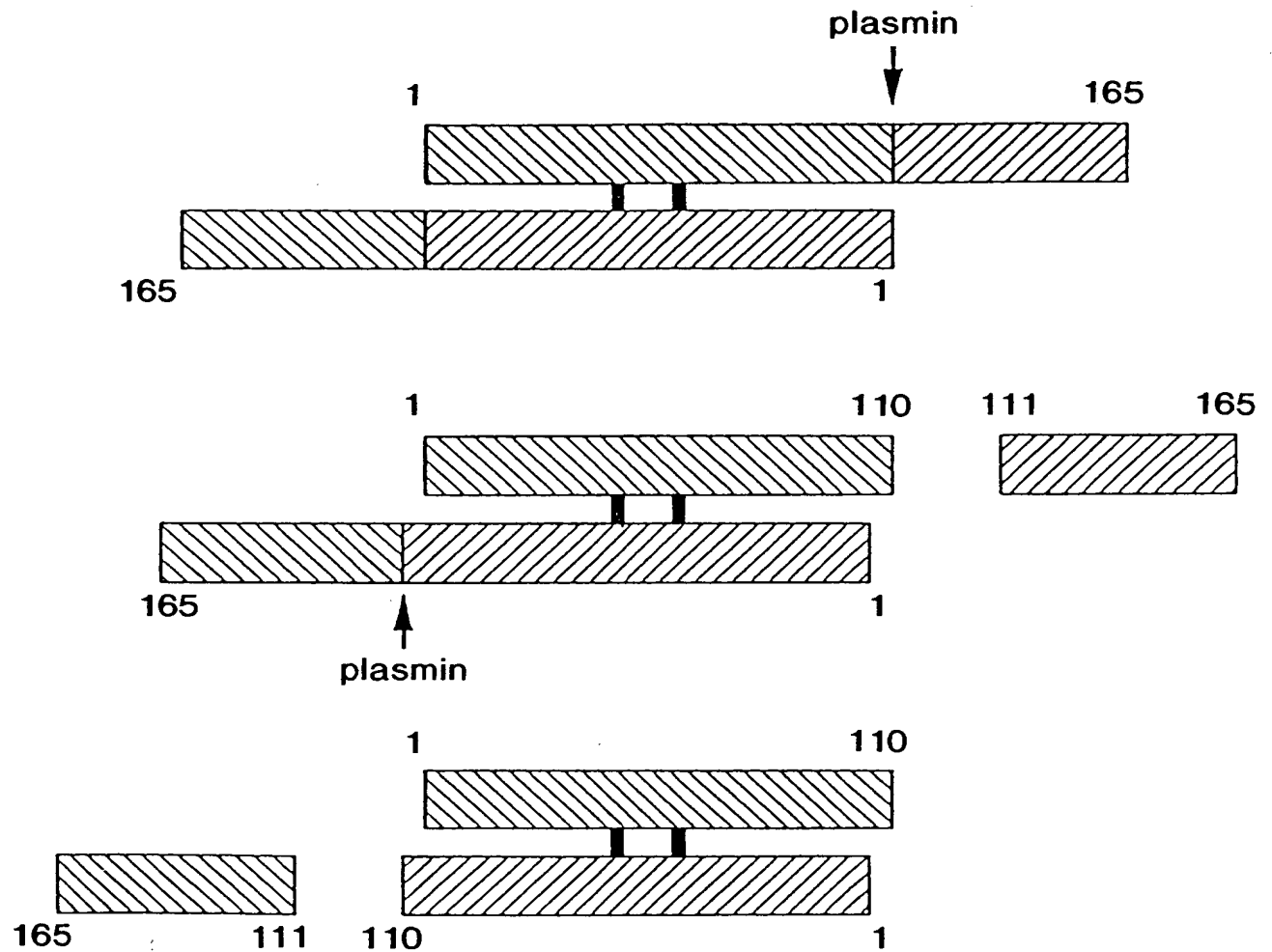


FIG. 2

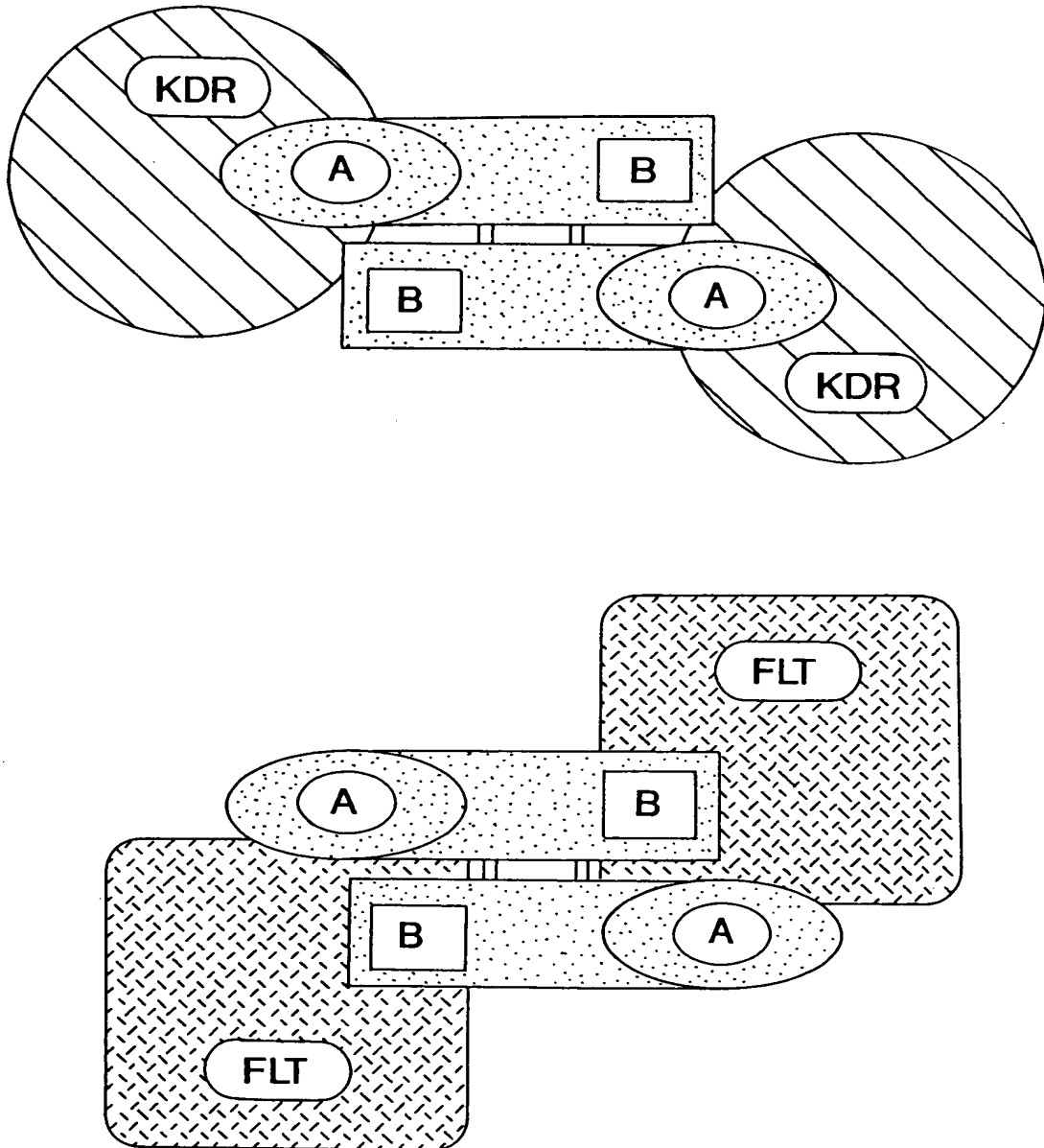


FIG. 3

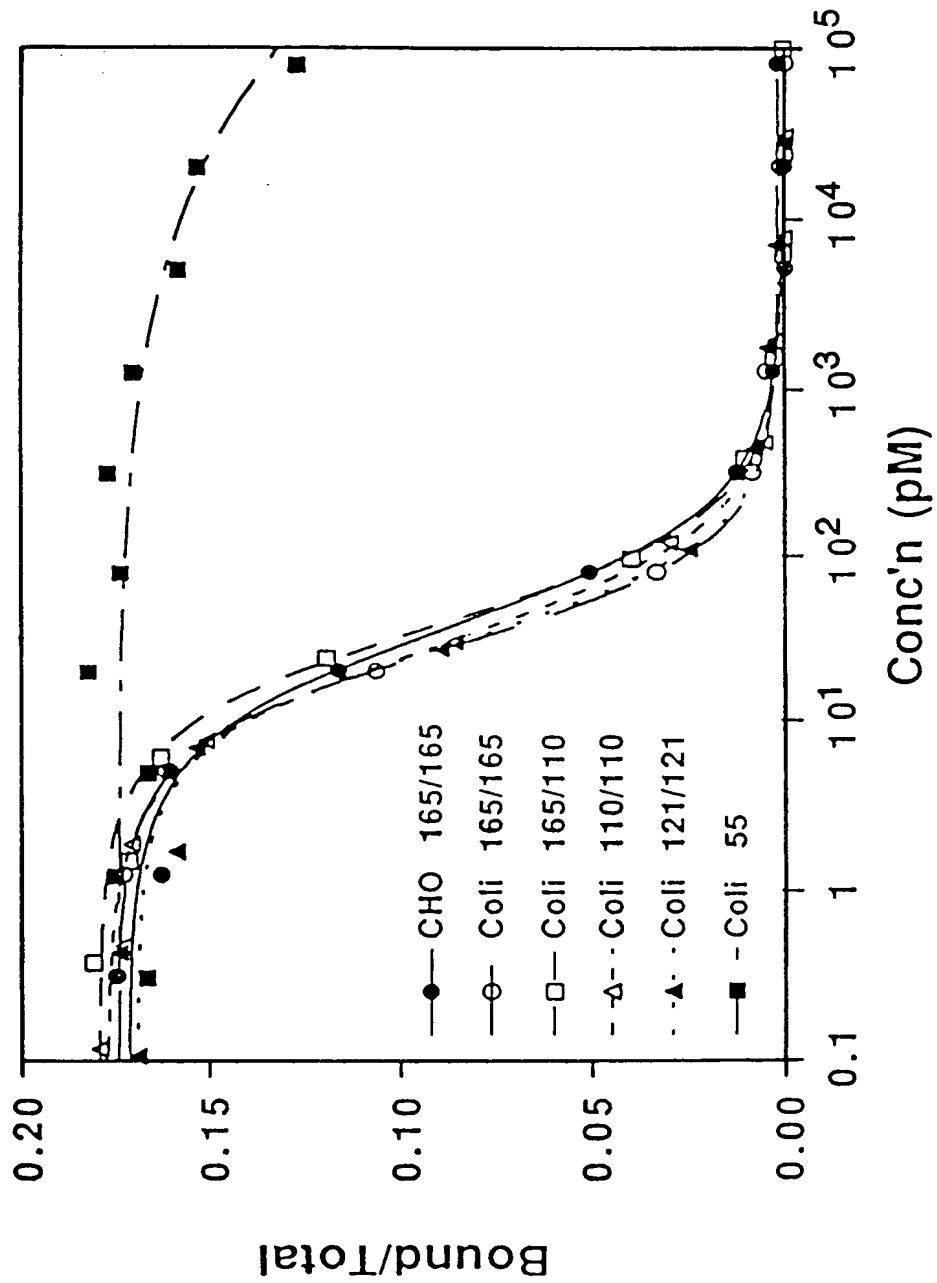


FIG. 4

<u>Loci</u>	<u>Mutation</u>	<u>Loci</u>	<u>Mutation</u>
5	E5A	64	E64A
12	H11A,H12A,E13A	64.7	D63A,E64A,E67A
17.5	K16A,D19T	67	E67A
23	R23A	72.5	E72A,E73A
27	H27A	82	R82A
28.5	H27A,E30A	84	K84A
30	E30A	84	R82A,K84A,H86A
34	D34A	86	H86A
36	D34A,E38A	91.5	H90A,E93A
38	E38A	100	H99A,K101A
41	D41A	103	E103A
42	E42A	105	R105A
42.3	D41A,E42A,E44A	107.5	K107A,K108A
44	E44A	108.5	KKDR(107-110)AAAA
48	K48A	109.5	D109A,R110A
56	R56A	113	R112A,E114A
63	D63A		

FIG. 5

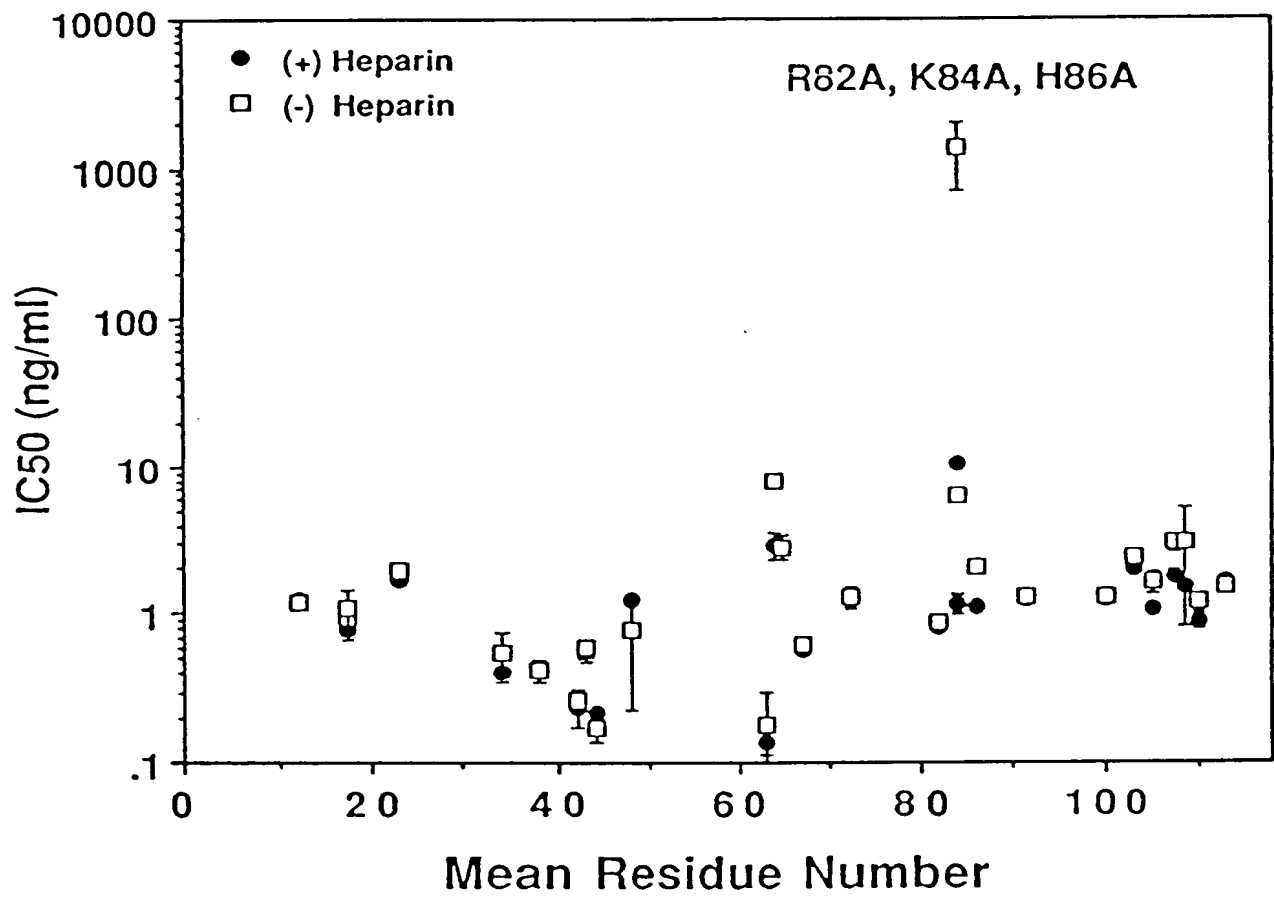


FIG. 6

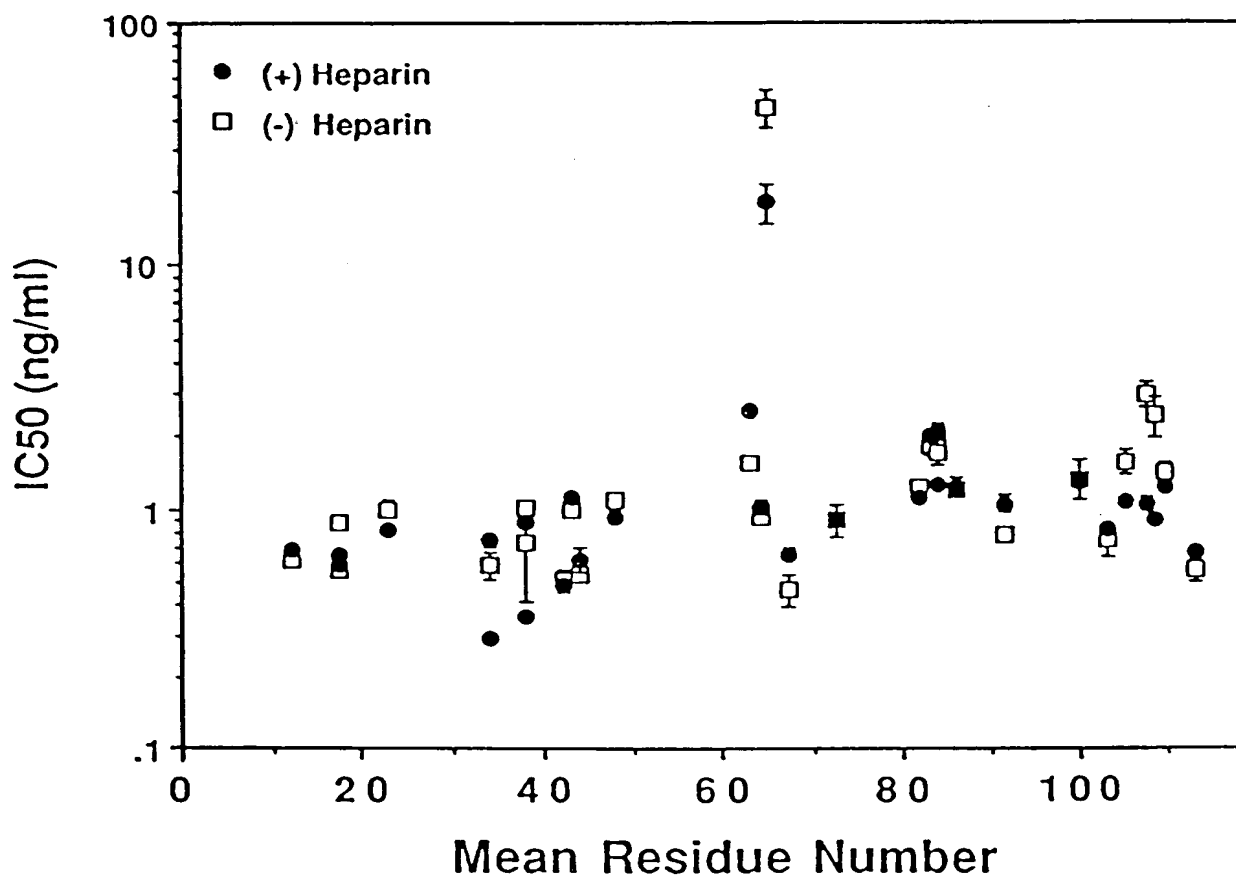


FIG. 7

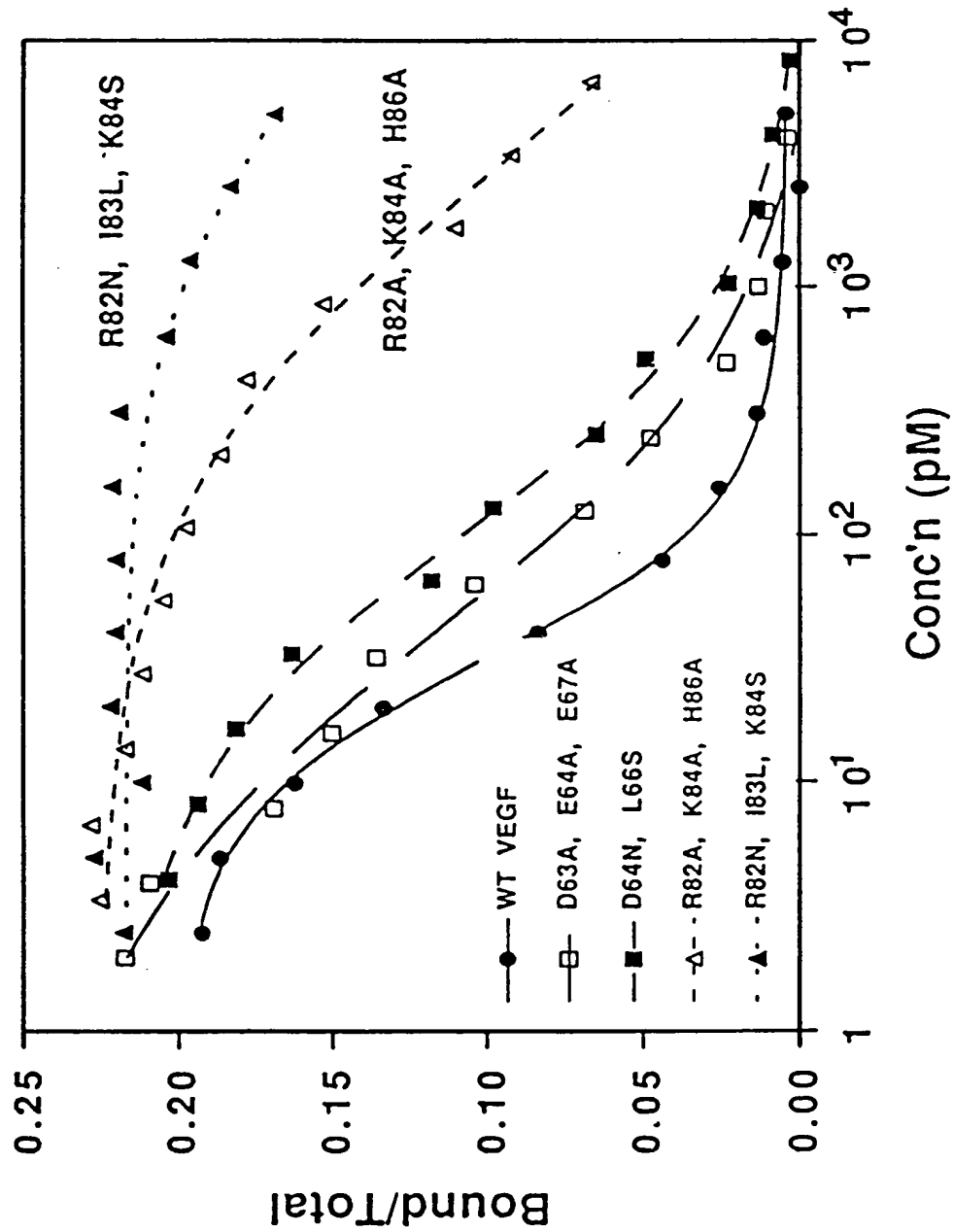


FIG. 8

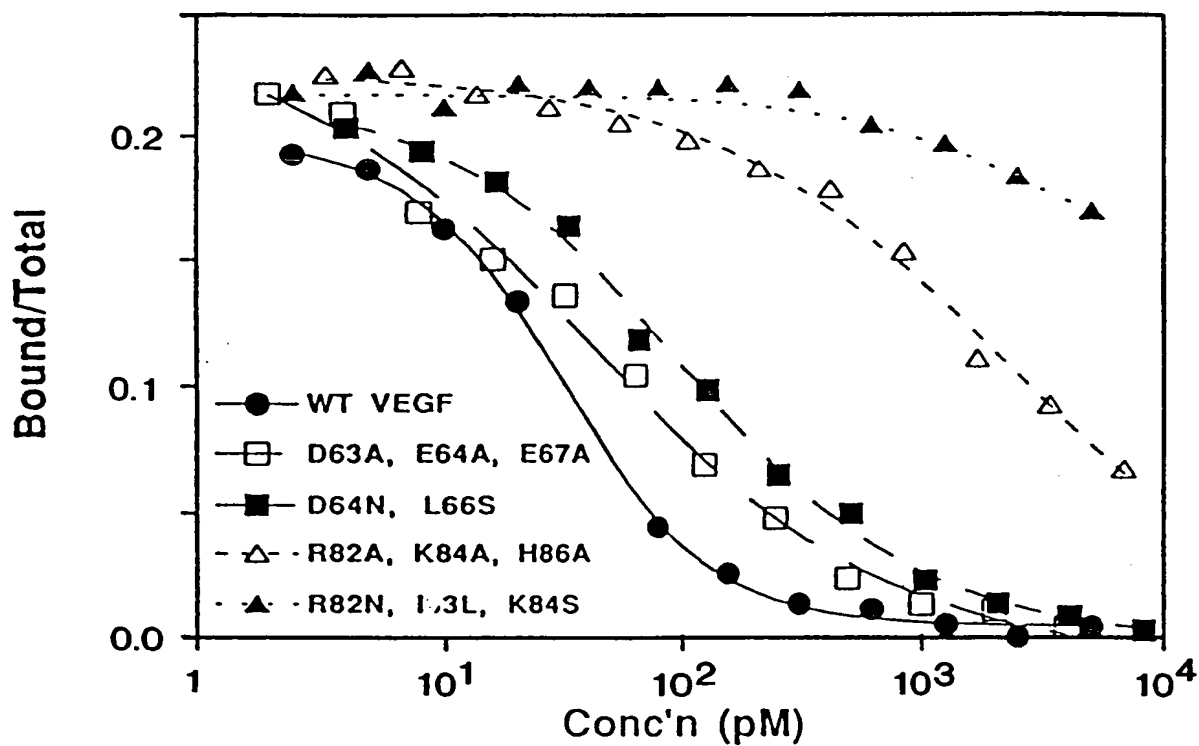


FIG. 9A

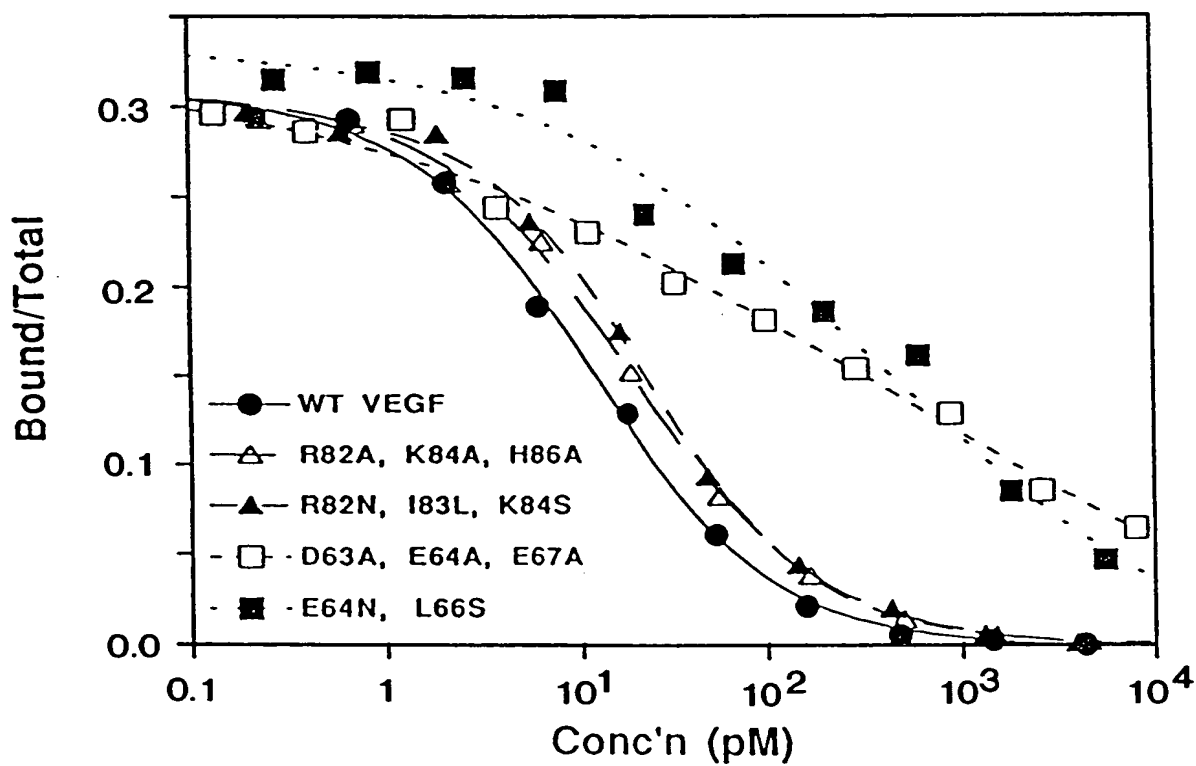


FIG. 9B

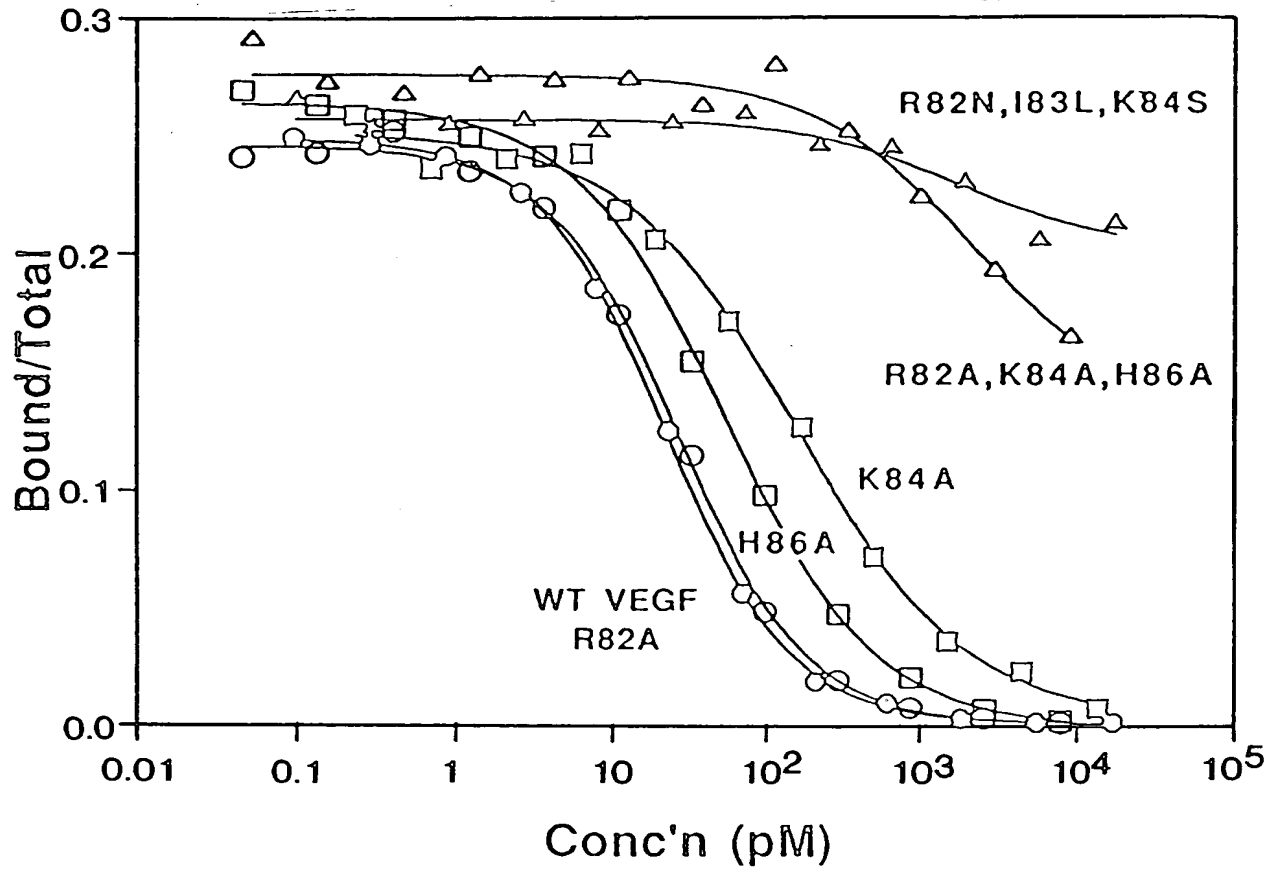


FIG. 10

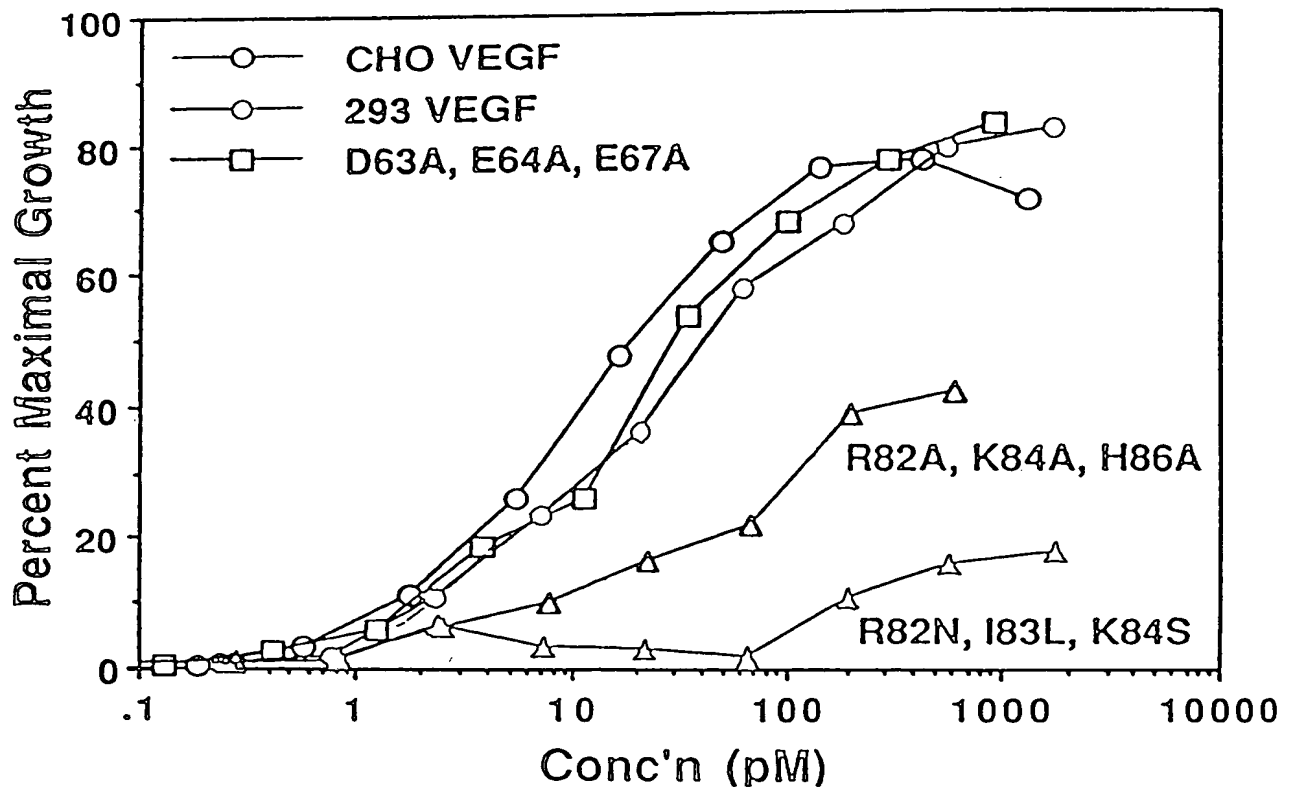
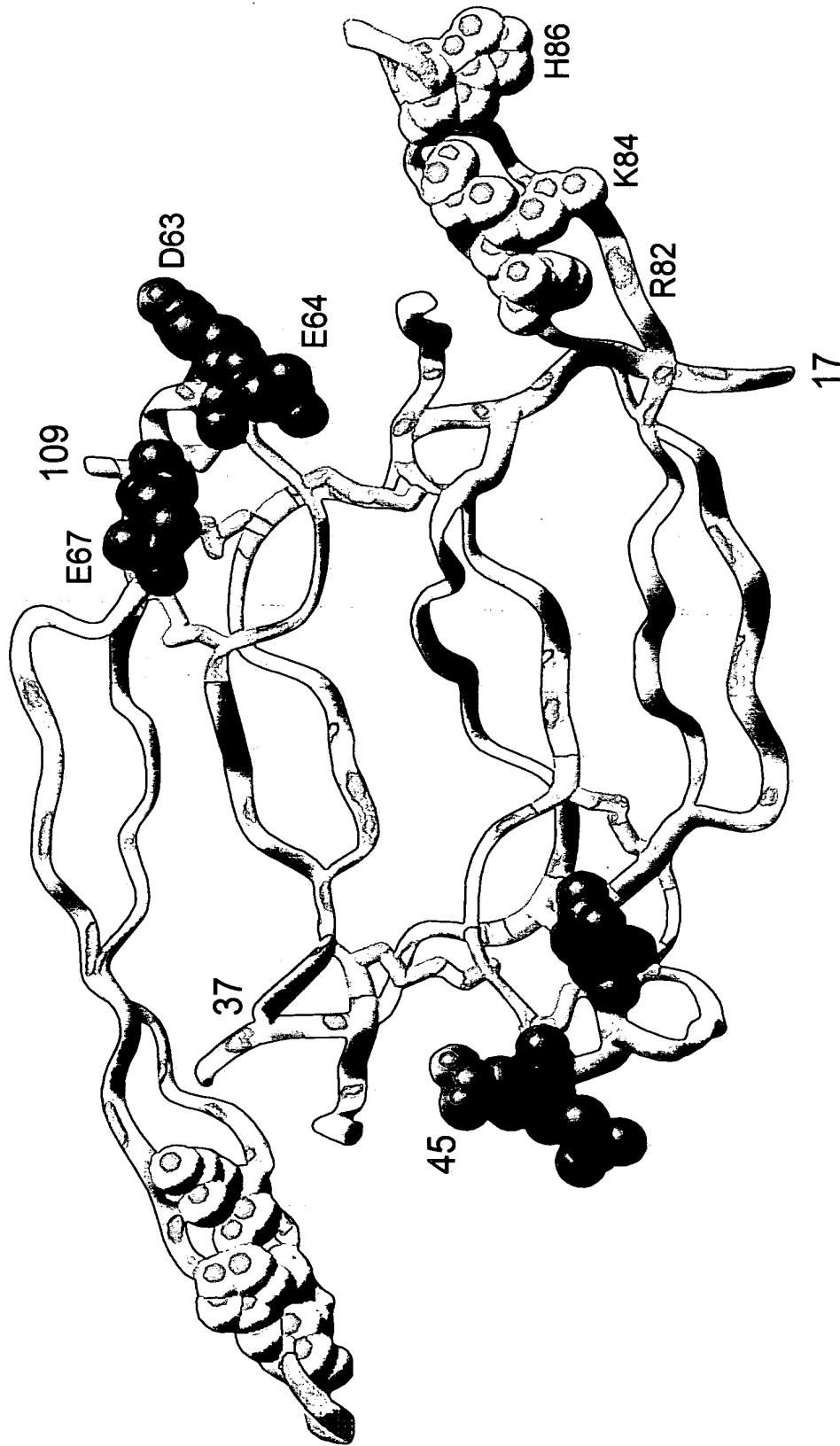


FIG. 11

FIG. 12



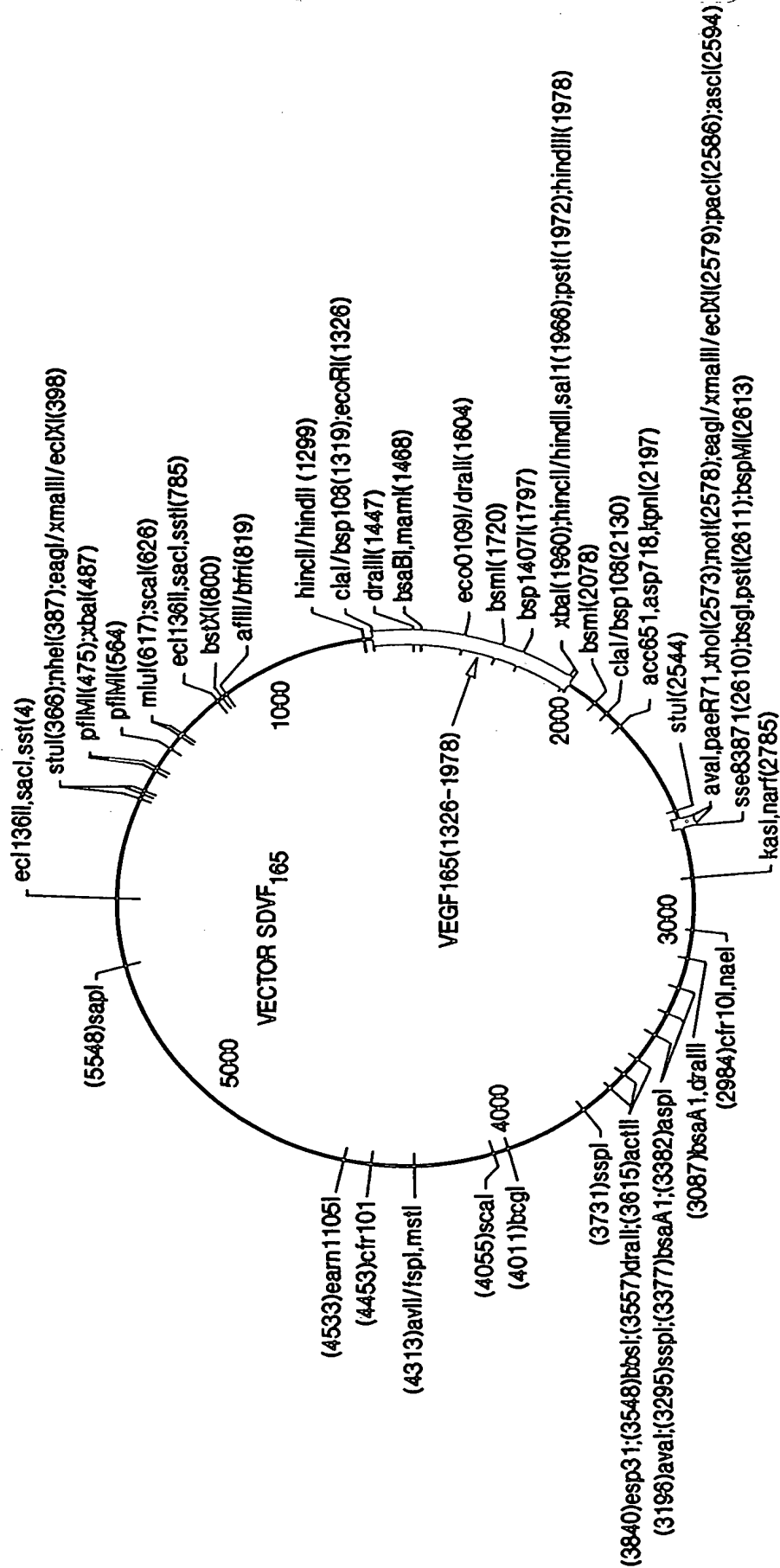


FIG. 13

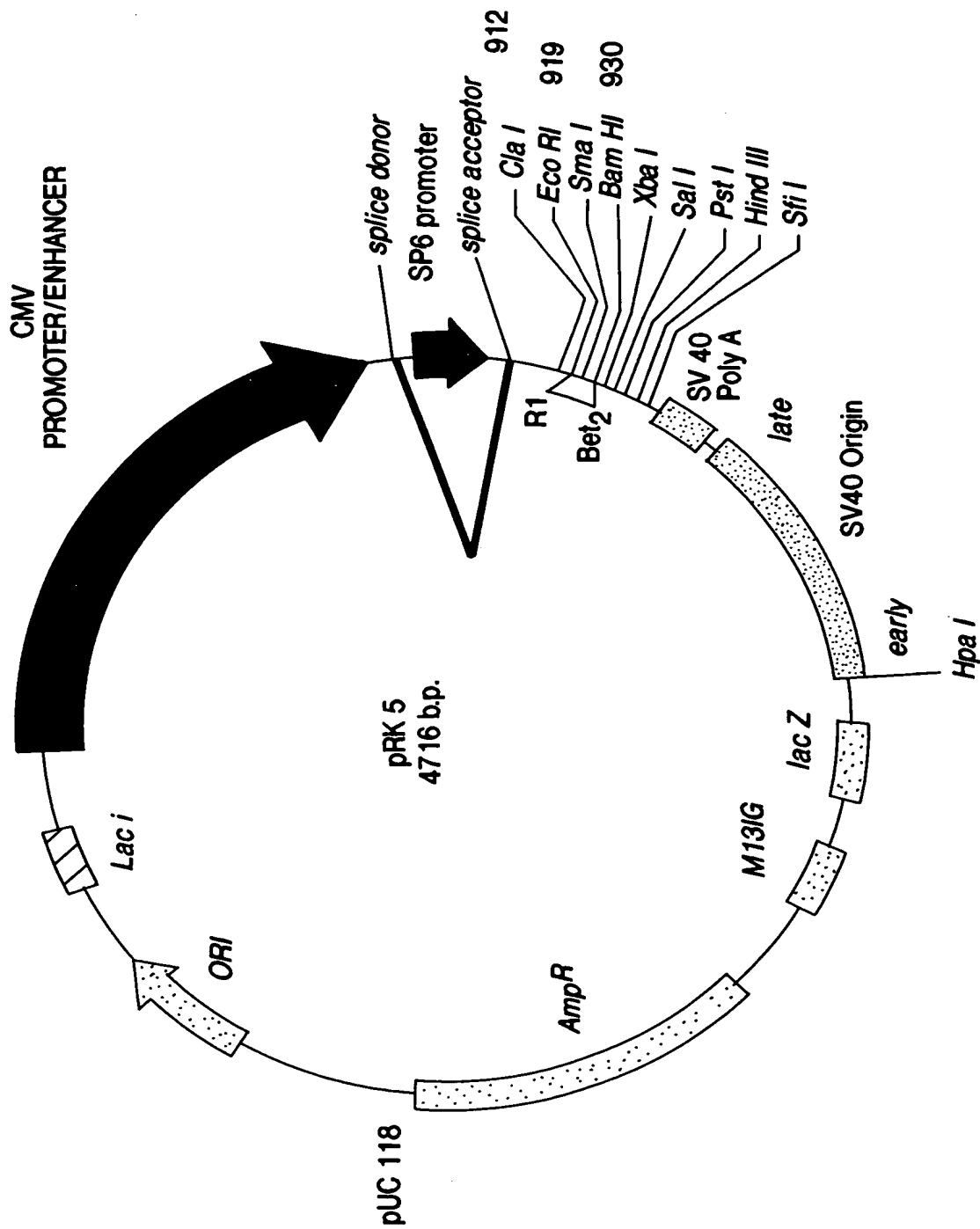


FIG. 14

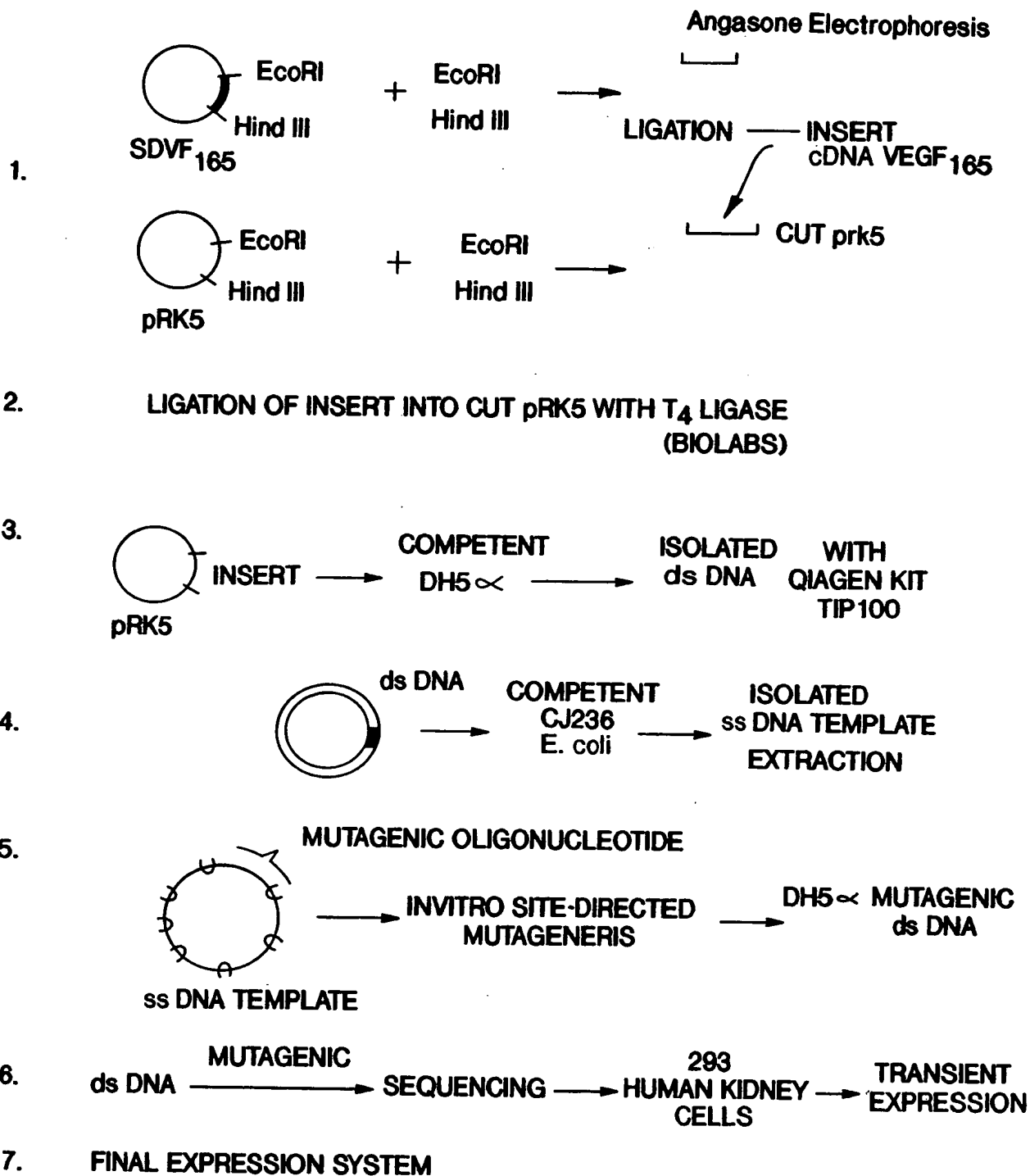
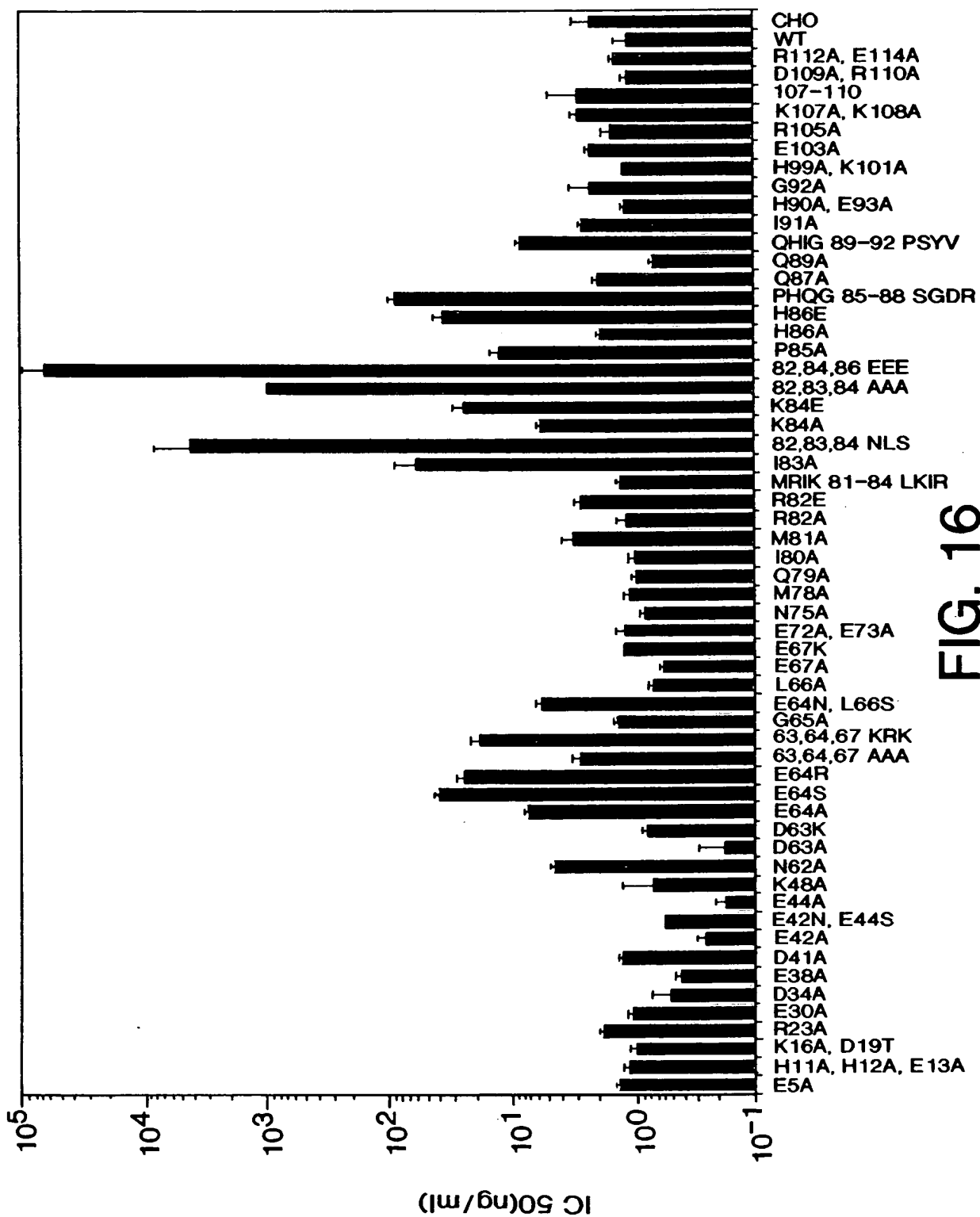
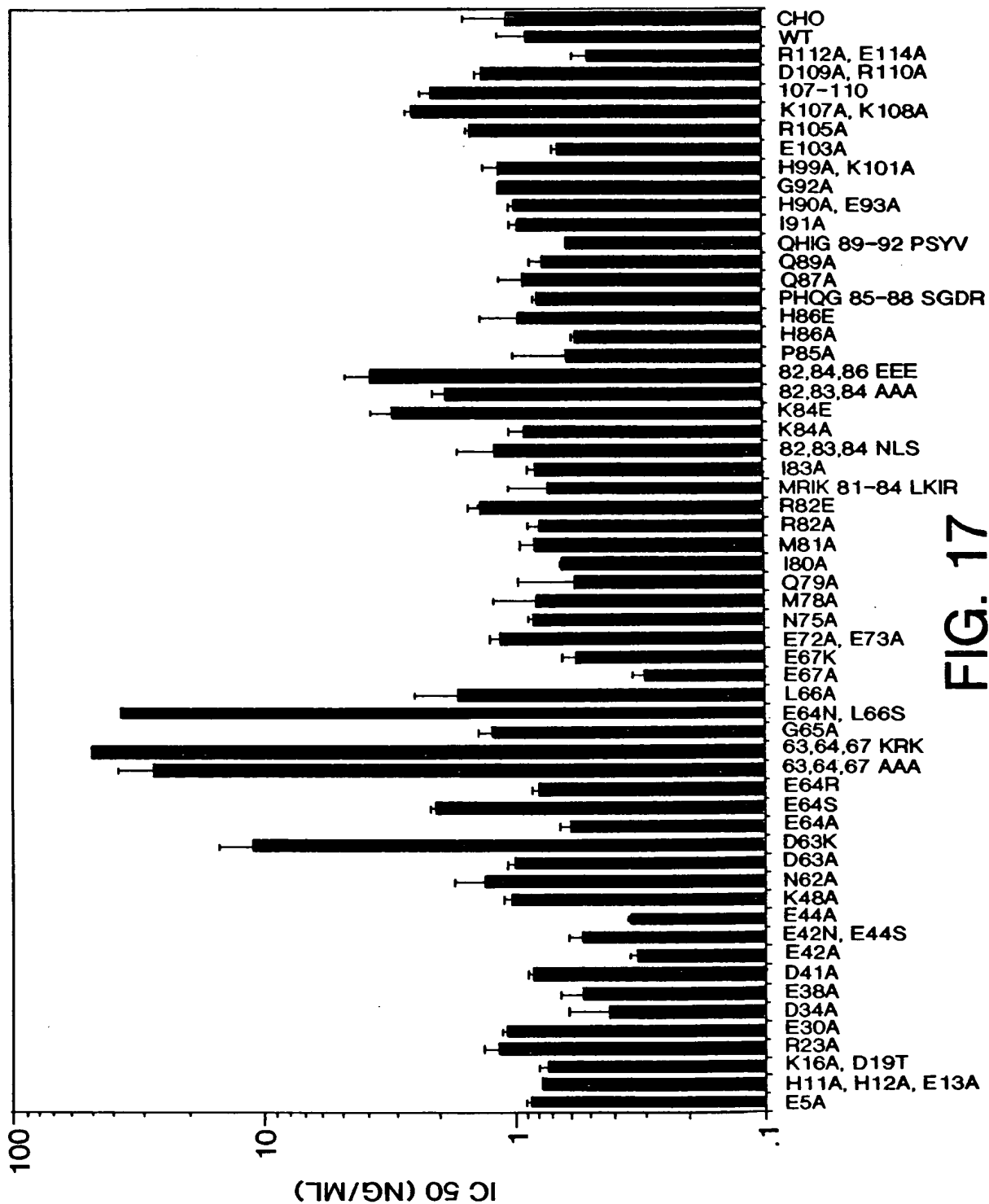
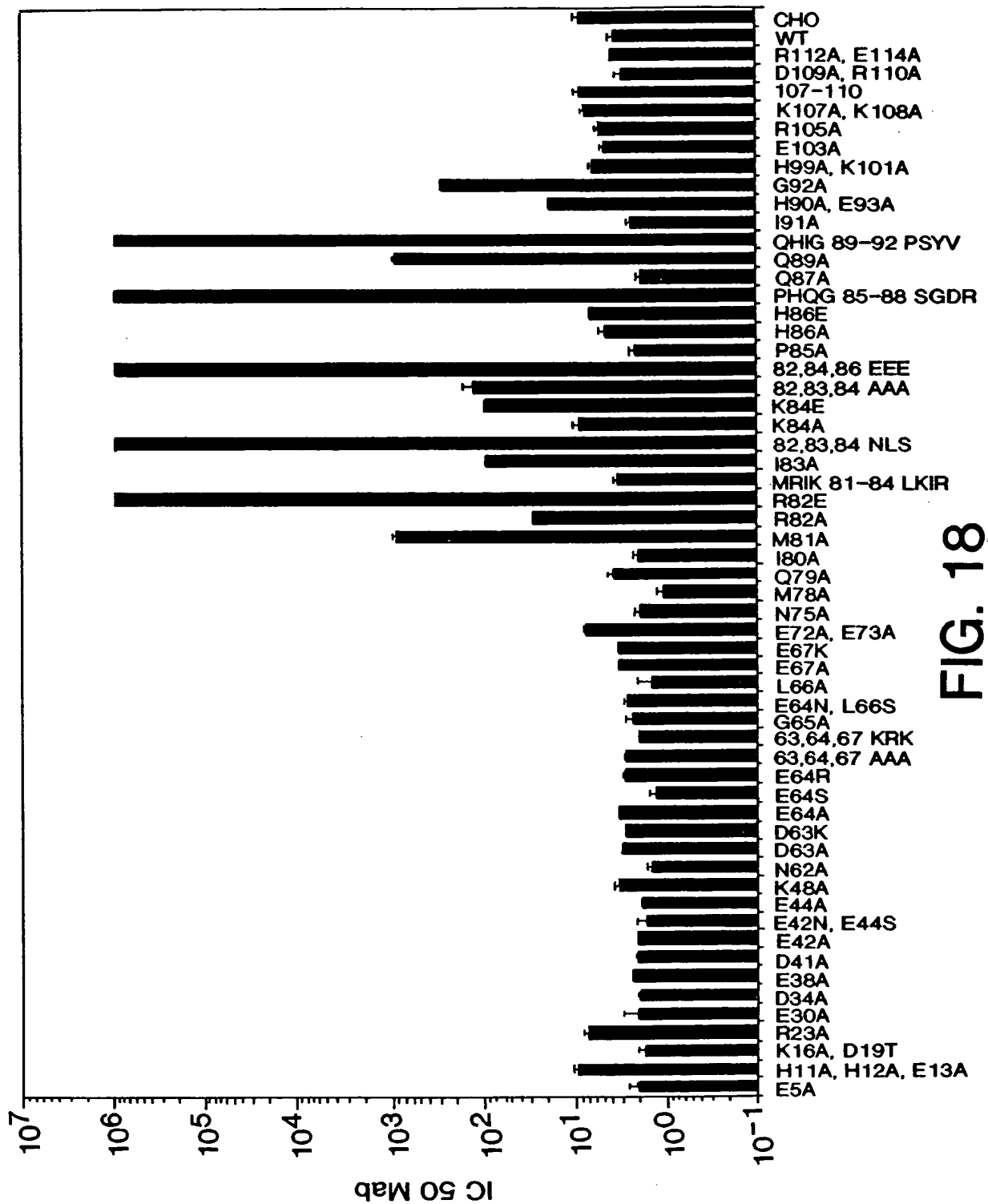


FIG. 15







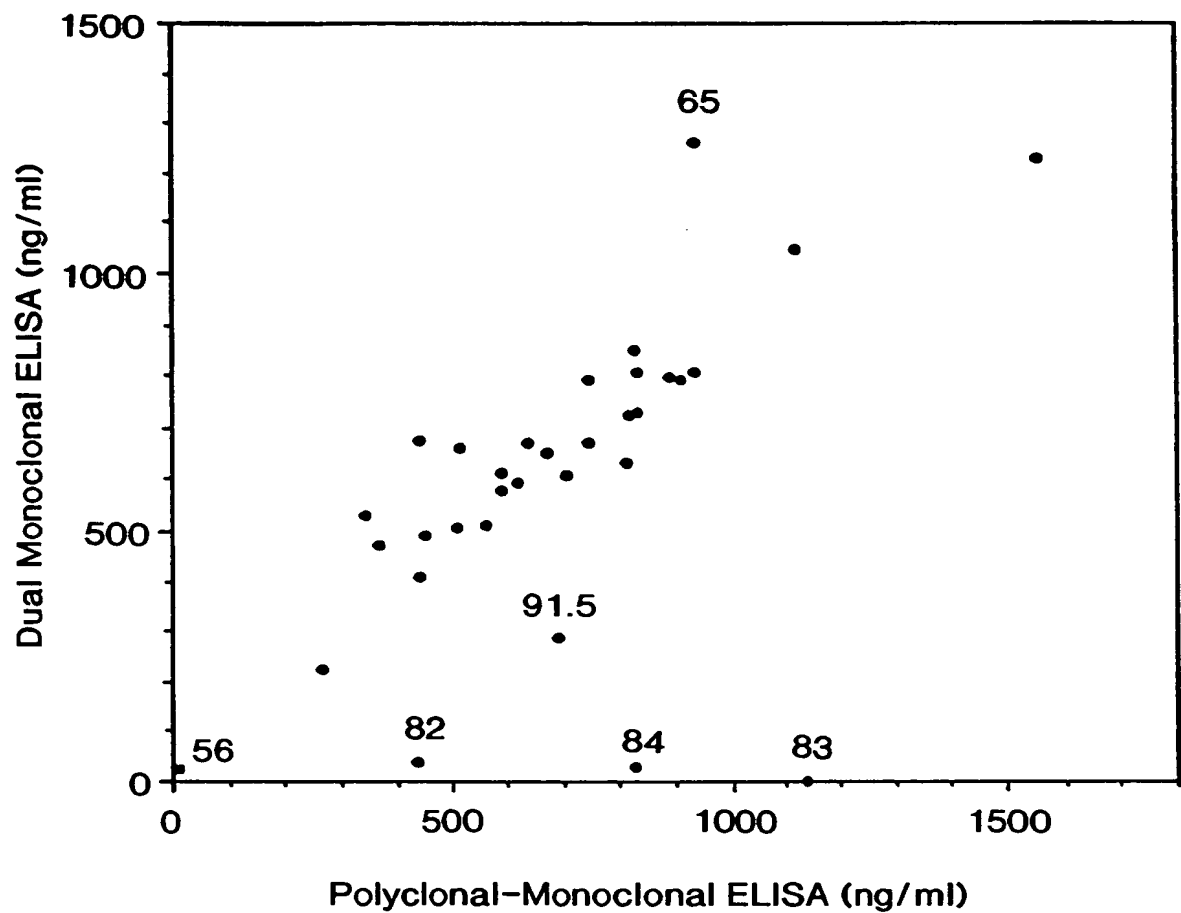
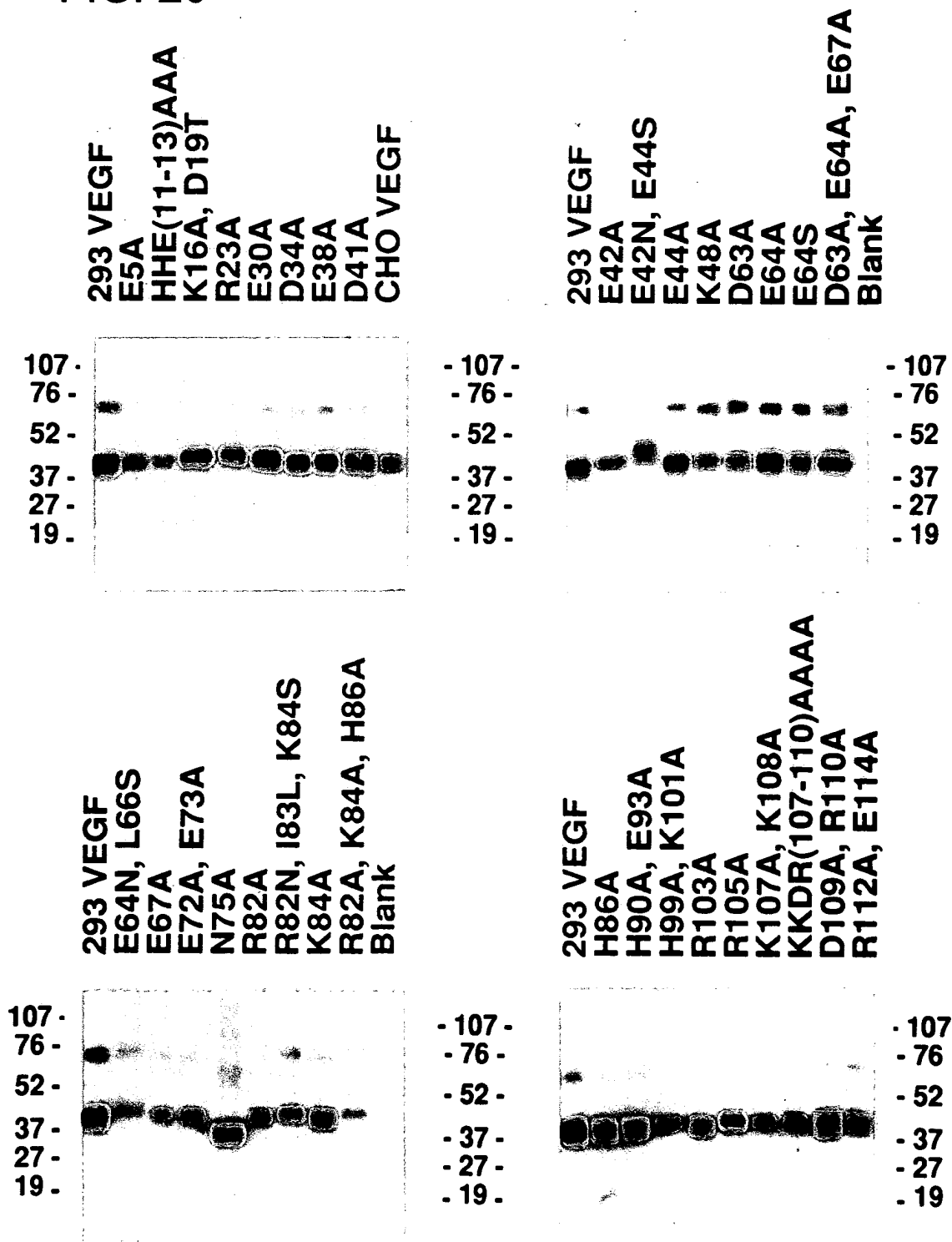


FIG. 19

FIG. 20



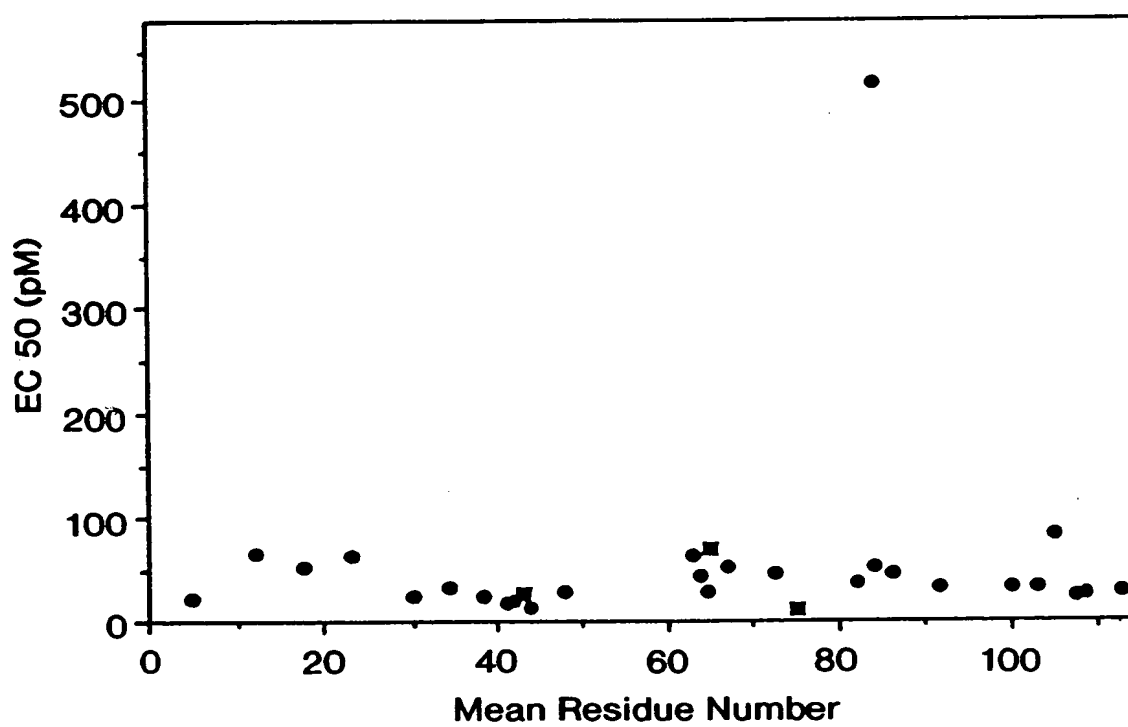


FIG. 21